

**WHAT IS CLAIMED IS:**

1. A pharmaceutical composition, comprising an imexon or derivative thereof in combination with one or more lipids.
- 5 2. The pharmaceutical composition of claim 1, wherein at least a portion of the lipids comprise micelles.
3. The pharmaceutical composition of claim 1, wherein at least one phospholipid comprises the lipids.
4. The pharmaceutical composition of claim 3, wherein a portion of the lipids comprise liposomes.
- 10 5. The pharmaceutical composition of claim 3, wherein the phospholipid is dimyristoyl phosphatidyl choline, dimyristoylphosphatidylglycerol or phosphatidic acid.
6. The pharmaceutical composition of claim 3, comprising a plurality of phospholipids.
- 15 7. The pharmaceutical composition of claim 6, wherein the phospholipids comprise dimyristoyl phosphatidyl choline and dimyristoylphosphatidylglycerol.
8. The pharmaceutical composition of claim 7, further defined as comprising dimyristoyl phosphatidyl choline and dimyristoylphosphatidylglycerol in a 7:3 molar ratio.
- 20 9. The pharmaceutical composition of claim 6, wherein the plurality of lipids comprise dimyristoyl phosphatidyl choline and phosphatidic acid.
10. The pharmaceutical composition of claim 9, further defined as comprising dimyristoyl phosphatidyl choline and phosphatidic acid in a 7:1 molar ratio.
- 25 11. The pharmaceutical composition of claim 1, wherein the imexon or derivative thereof is hydrophobic.

12. The pharmaceutical composition of claim 1, wherein composition comprises imexon.
13. The pharmaceutical composition of claim 1, wherein the composition comprises at least one derivative of imexon.
- 5 14. The pharmaceutical composition of claim 13, wherein the derivative of imexon comprises AMP-404.
15. The pharmaceutical composition of claim 11, wherein the derivative of imexon comprises AMP-404.
- 10 16. The pharmaceutical composition of claim 11, wherein the derivative of imexon comprises AMP-408.
17. The pharmaceutical composition of claim 11, wherein the derivative of imexon comprises AMP-415.
18. The pharmaceutical composition of claim 11, wherein the derivative of imexon comprises AMP-416.
- 15 19. The pharmaceutical composition of claim 11, wherein the derivative of imexon comprises AMP-419.
20. The pharmaceutical composition of claim 11, wherein the derivative of imexon comprises AMP-420.
- 20 21. The pharmaceutical composition of claim 11, wherein the derivative of imexon comprises AMP-421.
22. The pharmaceutical composition of claim 11, wherein the derivative of imexon comprises AMP-423.
23. The pharmaceutical composition of claim 11, wherein the derivative of imexon comprises AMP-425.

24. The pharmaceutical composition of claim 13, wherein the derivative of imexon comprises AMP-403, AMP-405, AMP-406, AMP-407, AMP-408, AMP-409, AMP-410, AMP-412, AMP-413, AMP-414, AMP-417, AMP-418, AMP-419, AMP-420, AMP-421, AMP-422, AMP-423, AMP-424 or AMP-425.
- 5 25. The pharmaceutical composition of claim 1, further comprising a targeting agent, a diagnostic agent or a second therapeutic agent.
26. The pharmaceutical composition of claim 25, wherein said targeting agent, diagnostic agent or second therapeutic agent is covalently attached to said lipids by a linking moiety.
- 10 27. The pharmaceutical composition of claim 25, comprising a second therapeutic agent.
28. The pharmaceutical composition of claim 26, wherein said second therapeutic agent comprises an anticancer agent.
- 15 29. The pharmaceutical composition of claim 28, wherein the anticancer agent is chemotherapy agent, a radiotherapy agent, an immune therapy agent, a genetic therapy agent, a hormonal therapy agent or a biological agent.
30. A pharmaceutical liposome composition, comprising an imexon or a derivative thereof in combination with one or more lipids.
- 20 31. A method of treating an individual with cancer, comprising administering to said individual a therapeutically effective amount of a composition comprising an imexon or derivative thereof in combination with one or more lipids.
32. A method of stimulating the immune system of an individual, comprising administering a therapeutically effective amount of a composition comprising an imexon or derivative thereof in combination with one or more lipids.